

# Hybrid Protein for Inhibiting the Degranulation of Mastocytes and the Use Thereof

## Abstract of Disclosure

A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocytosed by them. The protein can be IgE; IgE fragment; IgE Fc fragment; antibody against IgE receptor of mastocytes and basophils; fragment of the antibody against the IgE receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and mast cell degranulating peptide. The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be light chain Clostridium botulinum toxin; proteolytically active fragment of the light chain of a Clostridium botulinum toxin containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus toxin; proteolytically active fragment of the light chain of the tetanus toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of *Neisseria gonorrhoeae*; and proteolytic domain of the IgA protease of *Neisseria gonorrhoeae*.

